

Notice of Allowability

Application No.

09/437,370

Examiner

Audrey Y. Chang

Applicant(s)

CCHIKAZAWA, YOSHIHARU

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to April 15, 2005.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☒ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 2.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date April 15, 2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on **April 15, 2005** has been entered.
2. No amendment to the claims has been filed.
3. Claims 1-16 remain pending in this application.

Reasons For Allowance

4. The following is an examiner's statement of reasons for allowance: of the prior art references considered, none has disclosed a *stereoscopic display* device that is comprised of *transmissive image reproducing element*, light source means including a *first* and *second light sources* and an *optical means* for directing the light emitted by the first and second light sources **through** the transmissive image reproducing means and a *control means* for displaying alternatively an image for right eye and an image for left eye on the transmissive image reproducing element in *synchronization* with the activation of the first and second light source respectively, as set forth in the claims. The optical means being formed of *mirror means* and the display device is arranged such that the *light sources* and the *transmissive image reproducing element* are on the *same side* of the mirror means and the light from the light sources is directed **firstly** to the *mirror means* and from the *mirror means* to the *transmissive image reproducing element* and *then to the viewer*, (as explicitly set forth in the claims).

In a different embodiment, (claim 14), *the stereoscopic display device* comprises one *single light source* and an optical means comprising *movable mirror elements* associated with a *mirror control means* to control the orientation of the movable mirror elements in such way that each said movable mirror element has a *first and second position* and light is directed to right eye at first position (with the transmissive image reproducing means displaying right eye image) and directed to left eye at second position (with the transmissive image reproducing means displaying left eye image). The *light source* and the *transmissive image reproducing element* are on the *same side* of the movable mirror elements and the light from the light sources is directed to the movable *mirror elements* and from the *movable mirror elements* to the *transmissive image reproducing element*, (as explicitly set forth in the claims).

The prior art reference **EP 0 656 556A** teaches a stereoscopic image display, however it does not teach explicitly to have light source and the image reproducing element placed at the same side of an observer with respect to the mirror means.

The prior art reference **EP 0656730 A** teaches a stereoscopic image display but it does not teach the specific arrangements concerning the light sources, mirror (or movable mirror) and the image reproducing element explicitly recited in the claims of the instant application.

The prior art reference **EP 0650 301 A** teaches a stereoscopic image display that uses movable mirror to direct image light to the observer, however it does not teach the explicit arrangement concerning the light source, the mirror (or movable mirror) and the transparent image reproducing element as stated in the claims of the instant application.

The prior art reference **EP 0 804 042 A** teaches a stereoscopic image display however it does not teach explicit the arrangements concerning the light source; mirror or movable mirror and transparent image reproducing element as explicitly stated in the claims of the instant application.

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The prior art reference, **Patent Abstracts of Japan, (JP 09 146043)** teaches a stereoscopic image display having light sources and transparent image reproducing elements being placed at the same side of an observer with respect to mirror means. However this reference does not teach the left eye and right eye image are displayed on the reproducing element *alternatively* and does not teach to include a *control means* for *synchronizing* the activation of the first and second light source with respect to the alternatively displaying of the left eye and right eye image respectively. Rather the left eye and right image are displayed on separated image reproducing elements and not in alternative format.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

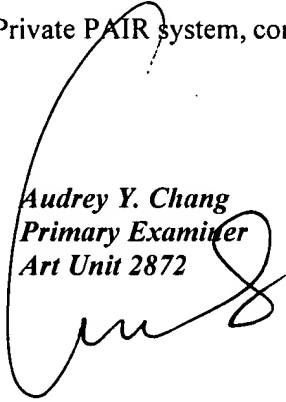
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Audrey Y. Chang
Primary Examiner
Art Unit 2872



A. Chang, Ph.D.